SILVA CELLS FOR PARKING LOT APPLICATIONS

Numbers in detail titles (1.1, 2.1, 3.2, etc.) denote the number of layers of Silva Cell frames. Basic paving details are all available in one, two, and three layers. These are a generic representation of a parking lot and should be modified to depict actual project conditions.

- Concrete 1.0
- Concrete 2.0
- Concrete 3.0
- Pavers, Asphalt & Porous Pavements 1.0
- Pavers, Asphalt & Porous Pavements 2.0
- Pavers, Asphalt & Porous Pavements 3.0

SILVA CELL SYSTEM COMPONENTS

- Inspection riser: Access point for monitoring of soil moisture.
- Root barrier: Directs roots down into the Silva Cell system. Prevents roots from accessing the pavement section.
- Concrete curb: Provides a stabilized edge around the tree opening. Keeps aggregate base course from migrating into the tree opening and potentially undermining the pavement.
- Aggregate base course: Typical of pavement sections, but with specific aggregate gradation to work well with the Silva Cell deck.
- Air space: Beneficial to plant material, this small air space allows oxygen flow below the pavement surfaces.

- Geotextile: Keeps aggregate from migrating down through Cell deck. Provides a stronger interface between Silva Cell system and adjacent materials.
- Geogrid: Provides vertical separation between planting soil and backfill while allowing for root penetration into adjacent soils.
- Spike: Keeps cells in place during construction and maintains typical spacing.
- Aggregate sub base: Specific aggregate gradation to provide a stable base for the Silva Cell system.
- Geotextile: Provides separation between existing material and aggregate sub base.

NOTES:
1. Installation to be completed in accordance with manufacturer's specifications.
2. Do not scale drawings.
3. Disclaimer: Conditions that vary from drawings must be evaluated by a qualified Engineer and appropriate adjustments made.
DeepRoot UB12-2 Root barrier

6"(150mm)

Geogrid. 'J' 6"(150mm) minimum below backfill at base.

Overlap 12"(300mm) minimum at top of Cells.

Backfill, installed in 8"(200mm) lifts, within 4"-6"(100-150mm) from top of decks, compacted to 95%

3/16" x14"(5mm x 350mm) zip ties, attaching Geogrid to Silva Cells at each level and at Cell deck

Anchor each Silva Cell to ground with (4) 10"(250mm) spike, <10mm dia., see Cell base for spike hole

Screw Cell decks to frames after snapping in place (typ.)

Geogrid, J 6"(150mm) minimum below backfill at base. Overlap 12"(300mm) minimum at top of Cells.

Backfill, installed in 8"(200mm) lifts, within 4"-6"(100-150mm) from top of decks, compacted to 95%

Anchor each Silva Cell to ground with (4) 10"(250mm) spike, see Cell base for spike hole

Concrete base course per project specifications

Silva Cells base slope to max. 5%

Geotextile on compacted subgrade

Planting soil per Silva Cell specifications, installed in 8"(200mm) lifts (2 lifts per cell)

4"(100mm) aggregate sub base, compacted to 95%

Subgrade below geotextile and aggregate base course, compacted to 95%

NOTES:

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DeepRoot UB18-2 Root barrier
6" (150mm) aggregate sub base, compacted to 95%
Silva Cell base slope to max. 5%
Subgrade below geotextile and aggregate base course, compacted to 95%
Planting soil per Silva Cell specifications, installed in 8" (200mm) lifts (2 lifts per cell)
Geotextile on compacted subgrade
1" (25mm) air space between Silva Cell deck and planting soil

18" (450mm) aggregate base course
4" (100mm) concrete, turn down to deck around tree opening. Position curb over Cell posts.
4" (100mm) aggregate base course
Geotextile, 18" (450mm) minimum overlap past excavation
Concrete base course per project specifications

Screw Cell decks to frames after snapping in place (typ.)
Geogrid, 12" (300mm) minimum at top of Cells.
Backfill, installed in 8" (200mm) lifts, within 4" - 6" (100 - 150mm) from top of decks, compacted to 95%
Anchor each Silva Cell to ground with (4) 10" (250mm) spike, <10mm dia., see Cell base for spike hole

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DeepRoot UB18-2 Root barrier
6" (150mm) aggregate sub base, compacted to 95%
Silva Cell base slope to max. 5%
Subgrade below geotextile and aggregate base course, compacted to 95%
Planting soil per Silva Cell specifications, installed in 8" (200mm) lifts (2 lifts per cell)
4" (100mm) aggregate sub base, compacted to 95%
Subgrade below geotextile and aggregate base course, compacted to 95%

Tree trunk, size varies
1"-2" (25mm-50mm) mulch above tree pit
DeepRoot UB18-2 Root barrier
Inspection riser

Curb stop, per project specifications
4" (100mm) concrete, turn down to deck around tree opening. Position curb over Cell posts.
4" (100mm) aggregate base course
Geotextile, 18" (450mm) minimum overlap past excavation
1" (25mm) air space between Silva Cell deck and planting soil

Concrete base course per project specifications
Screw Cell decks to frames after snapping in place (typ.)
Geogrid. 'J' 6" (150mm) minimum below backfill at base.
Overlap 12" (300mm) minimum at top of Cells.
3/16" x 14" (5mm x 350mm) zip ties, attaching Geogrid to Silva Cells at each level and at Cell deck
Backfill, installed in 8" (200mm) lifts, within 4"-6" (100-150mm) from top of decks, compacted to 95%
Anchor each Silva Cell to ground with (4) 10" (250mm) spike, <10mm dia., see Cell base for spike hole

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Concrete 3.0
DeepRoot UB12-2 Root barrier
6" (150mm)

Tree trunk, size varies
1"-2" (25mm-50mm) mulch above tree pit

Tree root package, size varies

1.25" (25mm-50mm) aggregate sub base, compacted to 95%

Silva Cell base slope to max. 5%

3" (75mm) aggregate sub base course

Concrete curb, sized per project specifications, positioned over Cell posts. Attach to paving.

Paving, per project specifications

Backfill, installed in 8" (200mm) lifts, within 4"-6" (100-150mm) from top of decks, compacted to 95%

3/16" x 14" (5mm x 350mm) zip ties, attaching Geogrid to Silva Cells at each level and at Cell deck

Anchor each Silva Cell to ground with (4) 10" (250mm) spike, <10mm dia., see Cell base for spike hole

Silva Cell base to ground with (4) 10" (250mm) spike, <10mm dia., see Cell base for spike hole

Concrete curb, sized per project specifications, placed backfill at base. Overlap 12" (300mm) minimum at top of Cells.

18" (450mm) minimum overlap past excavation

Subgrade below geotextile and aggregate base course, compacted to 95%

Screw Cell decks to frames after snapping in place (typ.)

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Silva Cells for PARKING LOT APPLICATIONS

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Ph. 410 263-4838

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6"(150mm) aggregate sub base, compacted to 95%
Silva Cell base slope to max. 5%
Subgrade below geotextile and aggregate base course, compacted to 95%
Planting soil per Silva Cell specifications, installed in 8"(200mm) lifts (2 lifts per cell)
4"(100mm) aggregate sub base, compacted to 95%
Subgrade below geotextile and aggregate base course, compacted to 95%

Curb stop, per project specifications
Concrete curb, sized per project specifications, positioned over Cell posts. Attach to paving.
Paving, per project specifications
12"(300mm) aggregate base course
Geotextile, 18"(450mm) minimum overlap past excavation
1"(25mm) air space between Silva Cell deck and planting soil

Tree trunk, size varies
1"-2"(25mm-50mm) mulch above tree pit
DeepRoot UB18-2 Root barrier
Inspection riser

Screw Cell decks to frames after snapping in place (typ.)
Geogrid, 3/16"(5mm) minimum below backfill at base. Overlap 12"(300mm) minimum at top of Cells.
3/16" x 14"(5mm x 350mm) zip ties, attaching Geogrid to Silva Cells at each level and at Cell deck
Backfill, installed in 8"(200mm) lifts, within 4"-6"(100-150mm) from top of decks, compacted to 95%
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